Quality Improvement Basics

Root Cause Analysis, Part 2

StratisHealth

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Objectives

After completing this module, participants will be able to

- Describe how to start a root cause analysis (RCA)
- Use triggering and triage questions and a cause and effect (fishbone) diagram to identify possible causes of a problem
- Explore how to write a clear causal statement

Starting an RCA

- Understand the sequence of events
  - Timeline
  - Chronological details can be collected beforehand to save time
- Reviewing literature can help evaluate current practice

RCA Categories or Triage Questions

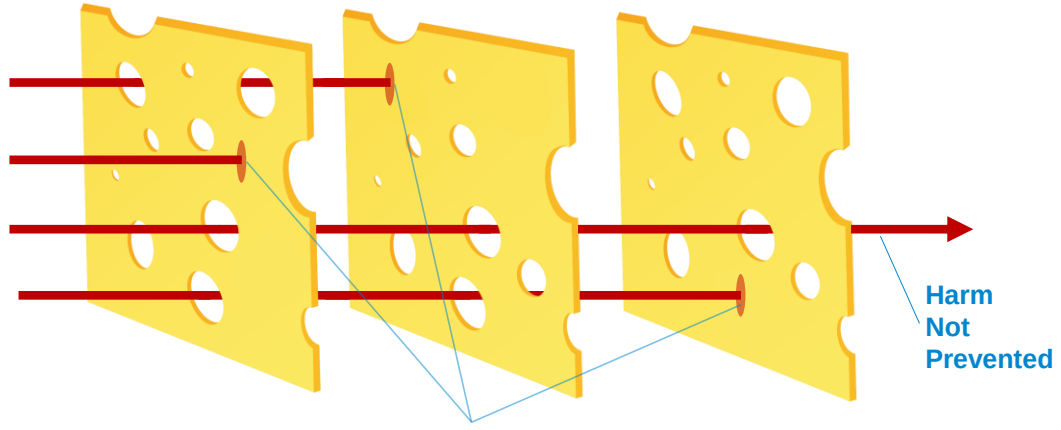
Human Factors

Communication	Training	Fatigue/Scheduling

Other Categories

Environment/ Equipment	Rules/Policies/ Procedures	Barriers

Swiss Cheese Model



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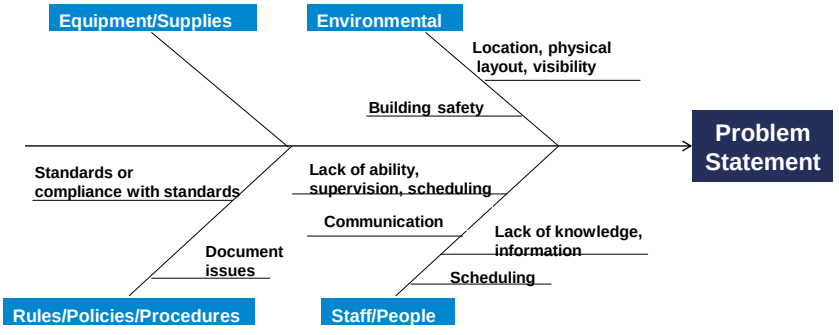
Cause and Effect Diagram



Specific categories and triage questions are linked in To Learn More

5

Common Questions

- How do you know if you have identified a root cause?
  - If you can confidently say that fixing this cause would make the problem much less likely to occur
  - If you fix the cause but feel the problem could happen to someone else, you have not identified a root cause
- Are there events with no root causes?
  - Yes, but they are rare
  - Generally, you can still identify one of more contributing factors that should be addressed

Developing a Causal Statement

- Causal statements must clearly show the “cause and effect” relationship
- Negative descriptors are not used in a causal statement
- Each human error must have a preceding cause
- Each procedural deviation must have a preceding cause
- Failure to act is only causal when there was a pre-existing duty to act

Source: Department of Veterans Affairs, National Center for Patient Safety and the 1999 Federal Aviation Administration technical report Maintenance Error Causation written by David Marx

Causal Statement Examples – Incorrect

- The resident was fatigued
- The nurse made a mistake, gave wrong dose
- The tech didn't follow the procedure
- The resident selected the wrong dose

Causal Statement Examples – Correct

Wrong site: Lack of standardized process (**process breakdown**) for repeating time out following patient position change (**cause**) resulted in loss of situational awareness of correct side for chest tube insertion (**effect**), chest tube was inserted on the incorrect side (**event**).

Test results: Lack of process (**process breakdown**) to confirm significant findings are communicated (**cause**) resulted in patient not knowing screening mammogram test results and need for follow-up (**effect**), leading to delay in diagnosis, treatment and patient presenting with advance stage disease (**event**).

Pressure Injury: Lack of a standardized process to prompt for all key patient systems during report (**process breakdown**), led to lack of communication regarding skin status (**cause**), resulting in inadequate preventative measures implemented (**effect**), and development of stage III pressure injury (**event**).

Corrective Actions

- Action plans should target elimination of the root causes or at least make it harder for them to happen. If we asked people to put time into creating an RCA, we need to develop a corrective action that is effective and doable.

Hierarchy of Actions

- To develop effective and sustainable, the team needs to consider where their actions fall in the hierarchy of strong, intermediate, or weak actions
  - **Strong**: change or redesign the process and/or system
  - **Intermediate**: some process or system changes but underlying processes remain unchanged
  - **Weak**: no changes made to process or system; attempt to enhance or reinforce existing process
- Simplification of processes is a strong action
- For more information see the RCA2 Guide linked on the next slide

To Learn More

- National Patient Safety Foundation. *RCA2: Improving Root Cause Analyses and Actions to Prevent Harm*
- VHA National Center for Patient Safety – *Root Cause Analysis*

In Summary

- RCA steps include creation of a timeline of events, and an RCA team meeting where members identify process and system breakdowns and potential root causes
- A key method in RCA is to discuss categories of causes to assess all factors that could be causal or contributing factors.
  - A cause-and-effect diagram can help teams identify and categorize potential factors
- The team agrees on root cause(s) and writes a causal statement that clearly and succinctly states what happened and identified root cause or causes

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